

ROCKVILLE REFUSE AND RECYCLING PROGRAM



Agenda

- Introduction
- Refuse Fund Update
- Pilot Program Results
- Refuse Program Component Review and Recommendations
- Final Recommendations
- Next Steps



Rockville Refuse Issues

- Resident cost expected to increase from \$31.00/month to \$61.45/month by 2020 (98% increase)
- Inequity among residents because all residents pay the same monthly charge, but are using different levels of service and generating different volumes of refuse
- Manual system limits size of waste containers (32-gallon)
- Manual system is labor intensive and promotes worker injuries
- Manual system discourages recycling:
 - Requires curbside recycling, but permits backdoor refuse pickup
 - Program is only achieving a 35% recycling rate; goal is 50%



Rockville Refuse Issues

- Labor intensive – refuse workers are required to go into the backyard even if there is no refuse set out
- Not all residents use or want twice-per-week collection, but all are required to pay for it
 - In the December 2004 survey, 55% supported once-per-week collection if they had a cart that would hold a weeks worth of garbage
- Current system has too many confusing instructions
 - Refuse must be in 32-gal containers weighing less than 50 lbs.
 - Procedures on disposing of metal/whitegoods unclear



Rockville Refuse Issues

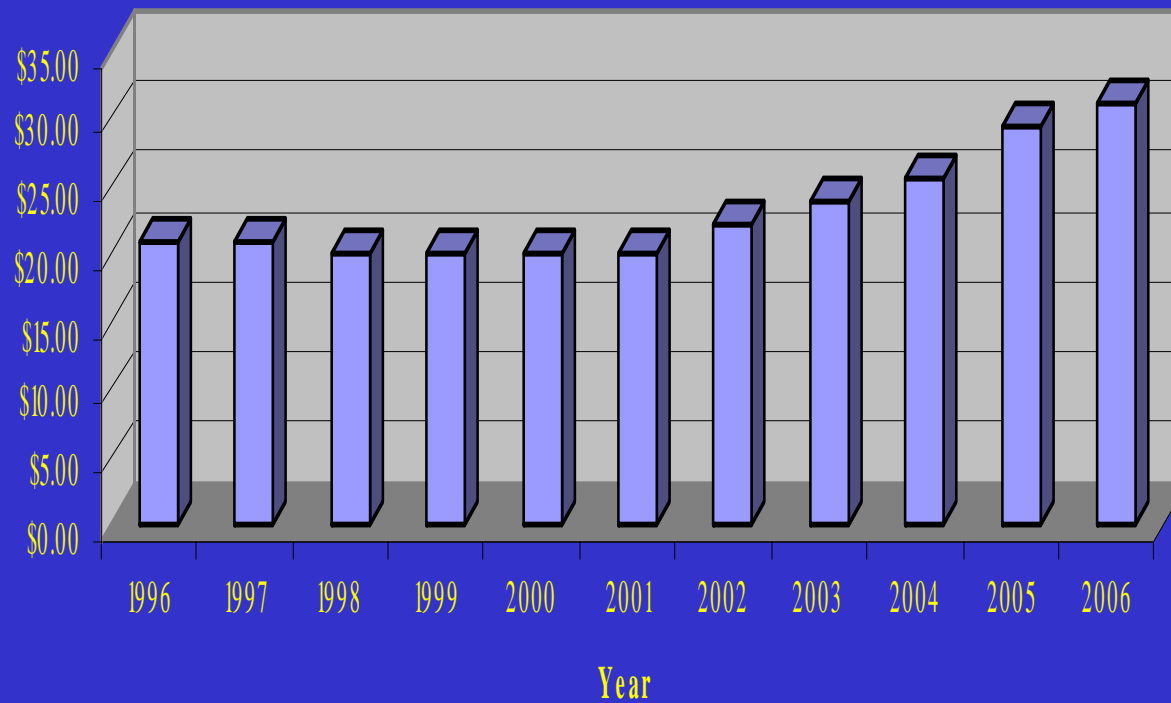
- Current system requires too much resident time/effort to prepare for set-outs
- Current system often results in trash blowing in neighborhoods on pickup days
- Current system contributes to too much worker confusion and missed collections
- Current system is not fiscally, environmentally, or operationally sound

Mayor and Council directed staff to conduct a pilot.



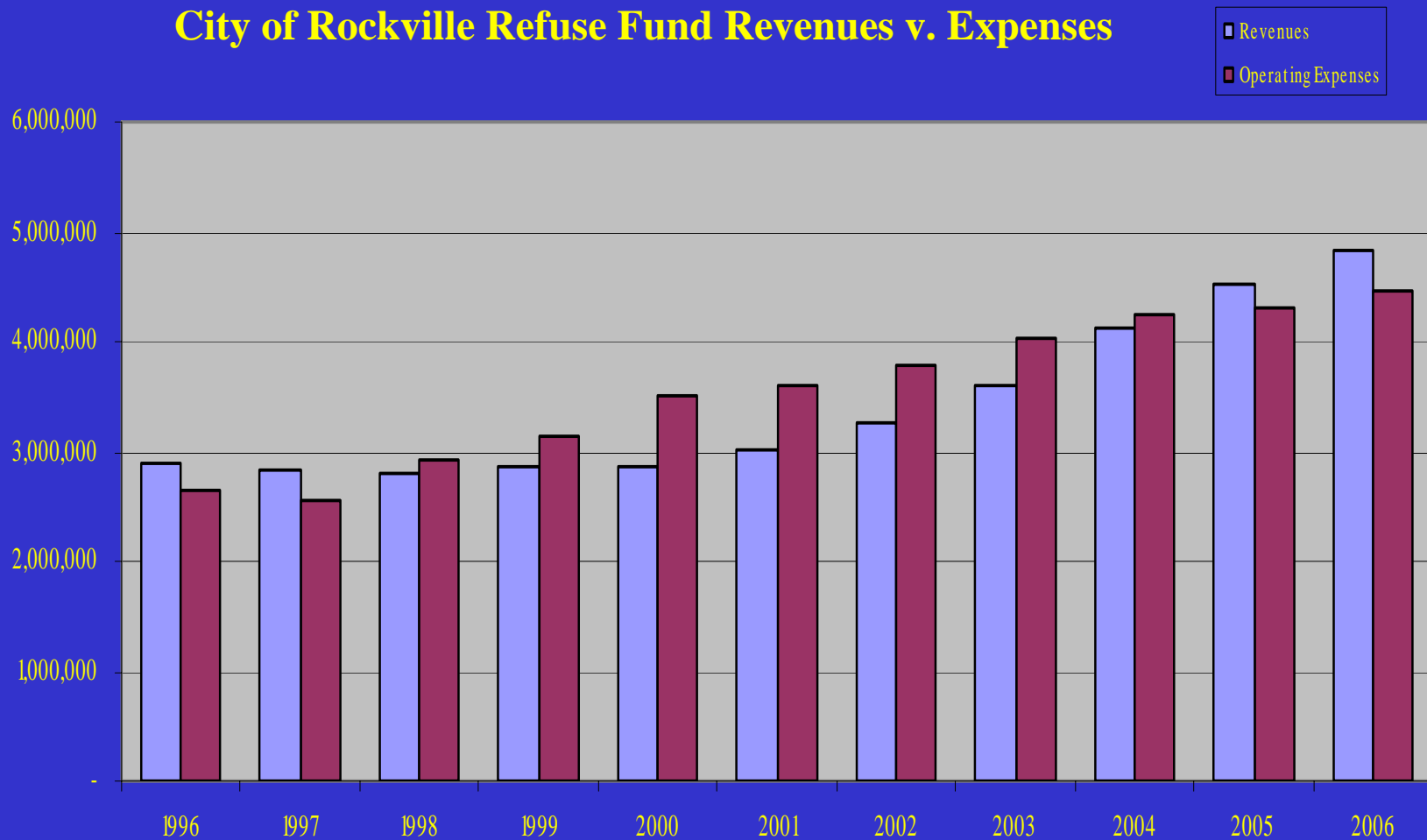
Refuse Fund Update

City of Rockville Refuse Fund Monthly Rates



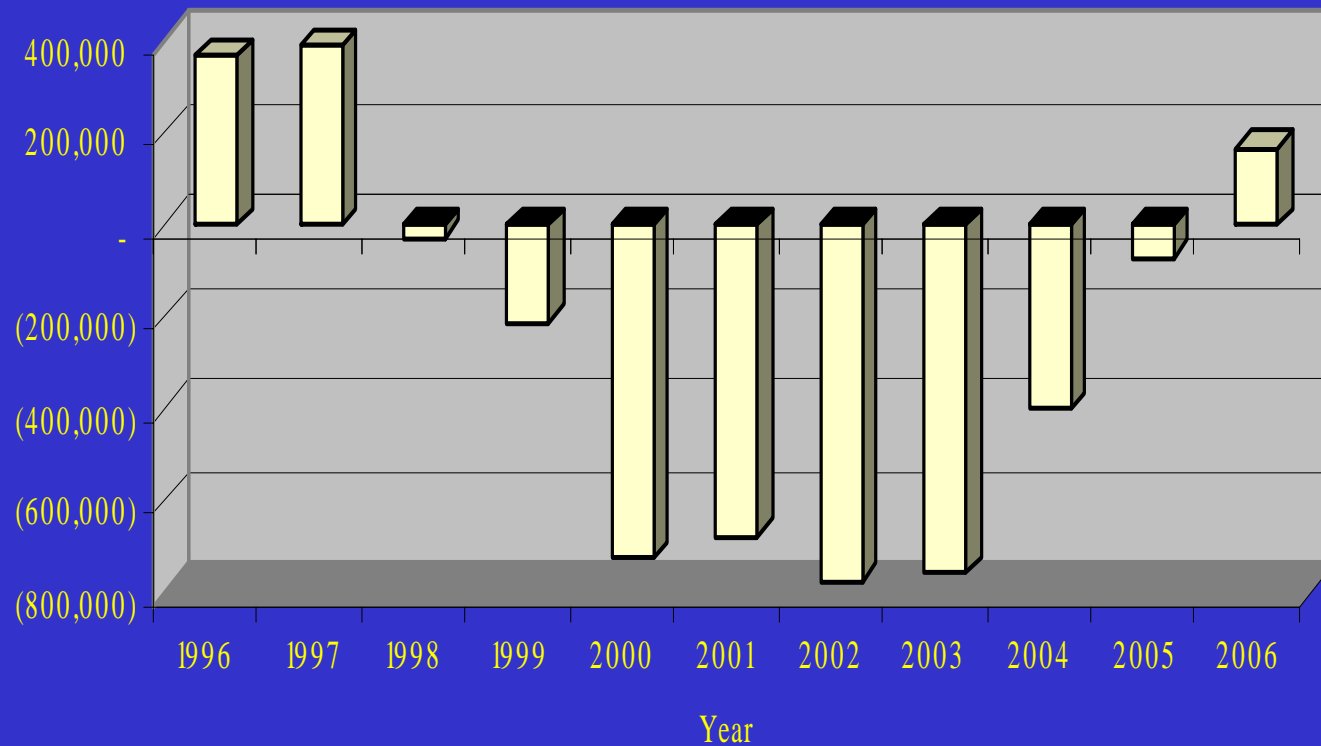
Refuse Fund Update

City of Rockville Refuse Fund Revenues v. Expenses



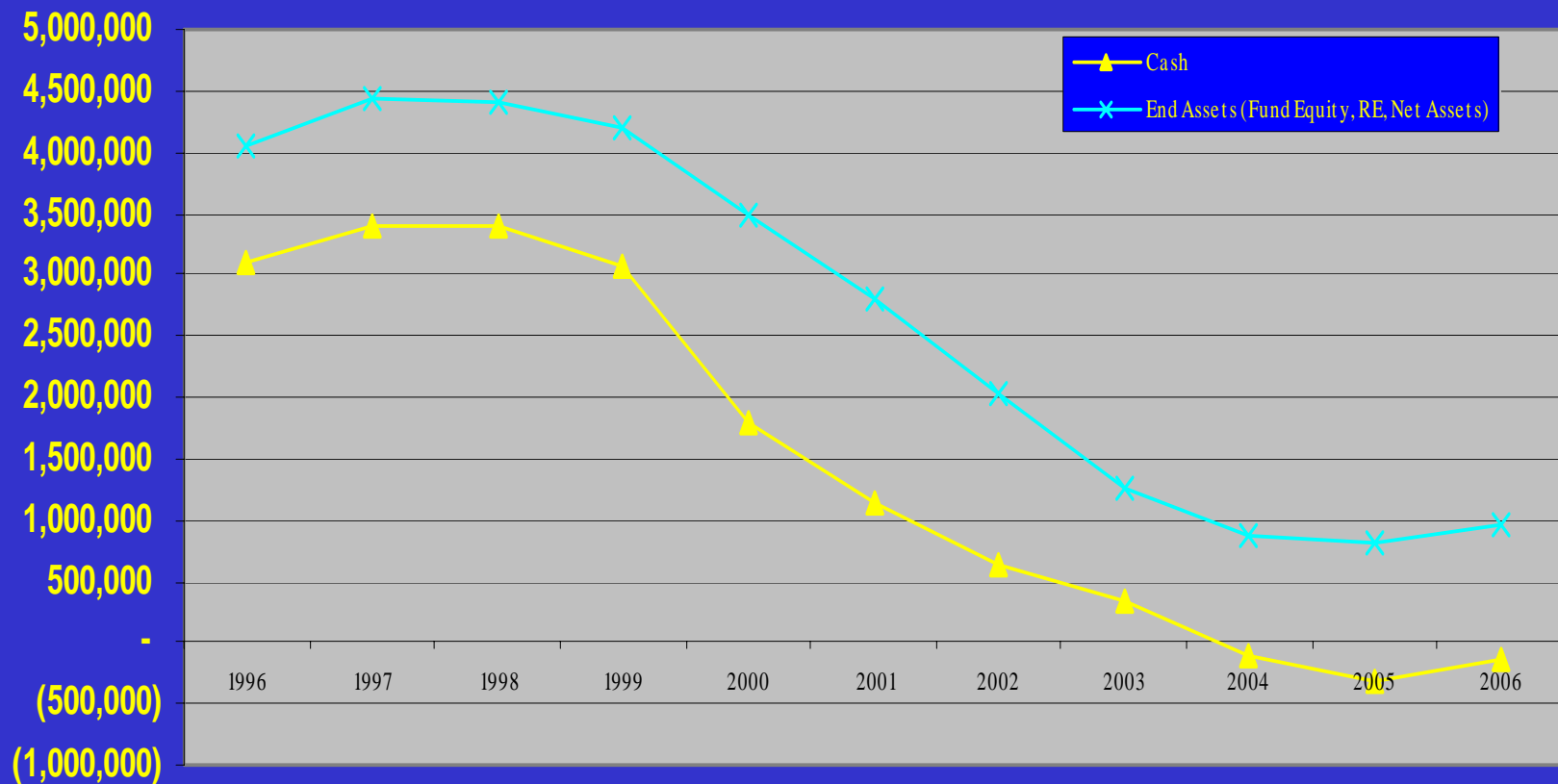
Refuse Fund Update

City of Rockville Refuse Fund Net Income/(Loss)



Refuse Fund Update

City of Rockville Refuse Fund Cash and Net Assets



Pilot Program

- 776 households
- March 20, 2006 – January 3, 2007
- Once-per-week, curbside only, semi-automated refuse and recycling collection with carts, unlimited overflow and bulk set-outs
- Non-collection holiday set-outs moved to Wednesdays



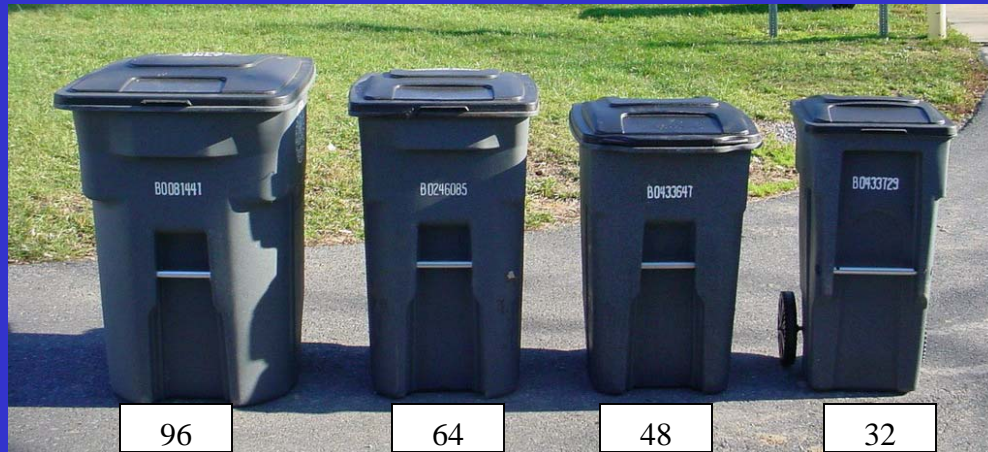
Pilot Goals

- Evaluate equipment needs, cart sizes, suitable route size, and staffing levels
- Gauge customer satisfaction through pre and post pilot surveys
- Gather information for future decision on volume-based-pricing
- Determine effect of new program on volume of refuse versus recycling
- Track bulk item collection data for future use



Pilot Cart Sizes

- Distributed one 96-gallon gray refuse cart and one 64-gallon brown mixed paper/cardboard cart to each pilot household
- Introduced additional refuse cart sizes:
 - Storage issues (King Farm, Wootton Oaks, townhomes)
 - Difficult set outs (slopes, stairs)
 - Low volume participants
- 42% of pilot households down-sized from the 96-gallon refuse cart



Single Stream Recycling Equals Improved Customer Convenience

- Current collection requires several trips to the curb (blue bin, paper bags, cardboard bundles)
- Single stream recycling in one cart
 - Easier resident set-outs making it more convenient
 - Encourages recycling
 - Promotes cleaner neighborhoods by eliminating debris from blowing in yards and streets
 - Assists with storage issues because fewer containers
- Waste Management has a facility in Elkridge, Maryland that is single stream recycling capable
- City tested single stream recycling for seven weeks
- Can implement single stream recycling ahead of Montgomery County



Single Stream Recycling Equals Improved Customer Convenience



Single Stream Recycling in Rockville



Public Outreach

- Two public pre-pilot meetings
- Eight civic association meetings
- Five smaller neighborhood meetings
- Web site, Rockville Reports, Cable Channel 11, Washington Post and Gazette articles, mailings
- Brochure, guide, literature, displays, comment cards, phone calls, emails, one-on-one contacts, surveys
- First place national City-County Communications and Marketing Association Savvy Award for customer service outreach



Pilot Results

- No worker injuries on the pilot route
 - Manual system resulted in 27 injuries last year
 - Of those 27 injuries, 21 could have been eliminated in a semi-automated program; 25 could have been eliminated in a fully-automated program
 - Seven workers currently unable to perform duties due to injuries on manual collection
- Volume of refuse set-out per household decreased by 6% on pilot route.
- Pilot recycling rate is 43% compared to 35% for remainder of City.



Pilot Survey Results

	<u>Pre-Pilot Current System</u>	<u>Pilot Mid</u>	<u>Pilot Final</u>
Response rate	46%	42%	48%
Percent rating collection quality as excellent/good	89% (36% / 53%)	89% (45% / 44%)	95% (59% / 36%)
Percent rating clean neighborhoods as excellent/good	70% (18% / 52%)	84% (38% / 46%)	87% (46% / 41%)
Percent rating cart size as very satisfied/satisfied	N/A	74% (36% / 38%)	91% (53% / 37%)
Percent rating overall pilot as very satisfied/satisfied	N/A	92% (42% / 50%)	93% (57% / 36%)



Pilot Survey Results

	<u>Strongly Support</u>	<u>Support</u>	<u>No Opinion</u>	<u>Oppose</u>	<u>Strongly Oppose</u>
Variable-based-pricing	28%	30%	11%	14%	17%
(58% strongly support/support variable-based-pricing)					

	<u>One/Year</u>	<u>Two/Year</u>	<u>Four/Year</u>	<u>One/Month</u>	<u>Two/Month</u>	<u>Weekly</u>
Bulk	25%	21%	14%	12%	11%	17%
(60% utilize bulk collection quarterly or less)						

	<u>Strongly Support</u>	<u>Support</u>	<u>No Opinion</u>	<u>Oppose</u>	<u>Strongly Oppose</u>
Citywide Implementation	45%	37%	11%	3%	3%
(82% strongly support/support citywide implementation)					



Conclusions

- Must replace side-loading recycle trucks because not efficient; not easily adaptable to cart operations
- Must offer a range of cart sizes
- Eliminate back/side door collection
 - Back/side door service creates inhumane working conditions
 - Pilot resident satisfaction with the quality of collection increased despite elimination of back/side door collection
- Eliminate manual collection; automate as much as possible
 - Automated equipment exists to eliminate lifting
 - Carts support variable-based-pricing
 - Other communities report no injuries since program implementation



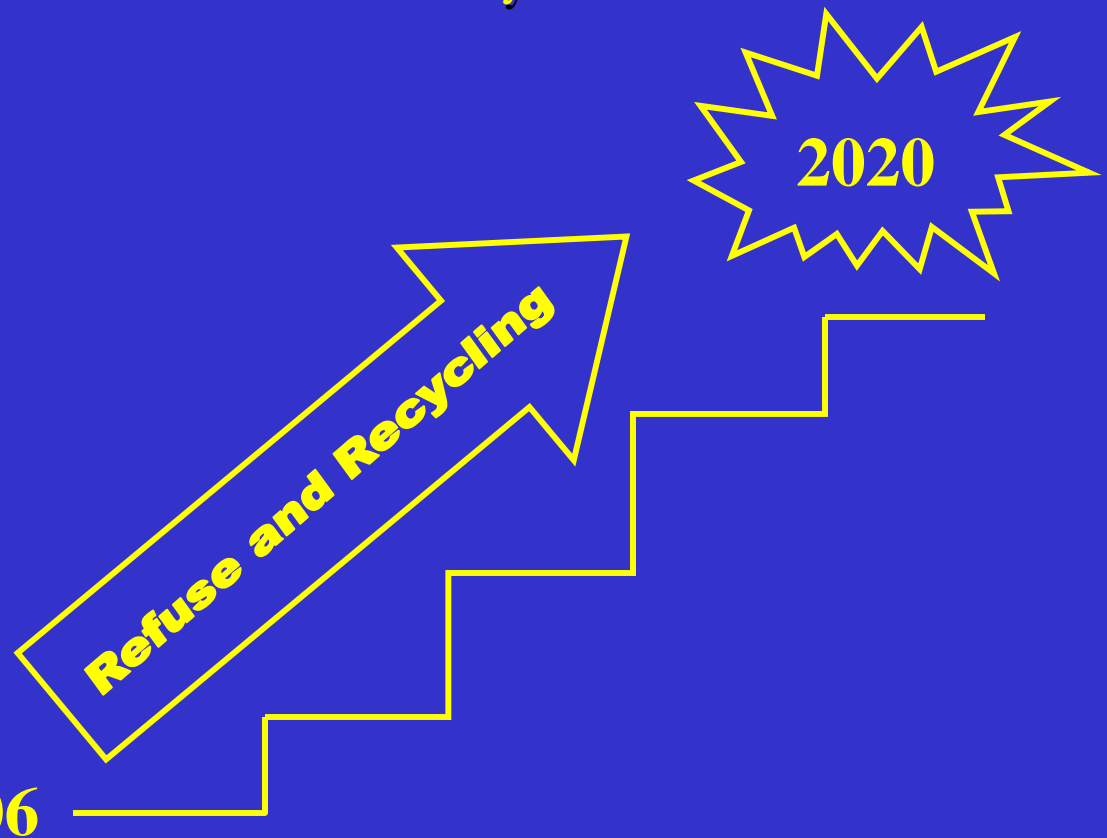
Conclusions

- Implement single stream recycling
- Once-per-week collection has been successful on the pilot and can succeed citywide
- Residents who have tried semi-automated collection want to stay on the program and support citywide implementation
- Work closely with each neighborhood, especially concerning townhome issues



Vision of Rockville in 2020

- **An Exceptional Built Environment**
 - A framework and inventory of practices that will move Rockville toward being a sustainable, energy saving, and environmentally sensitive community
- **Fiscal Strength**
 - Review enterprise funds and take actions necessary to make them self-sufficient



Decisions to be Made

- Location (curbside, back/side door)
- Method (manual, semi-automated, semi-automated with fully-automated where possible)
- Single stream recycling
- Variable-based-pricing and overflow
- Frequency of collection
- Other collection services

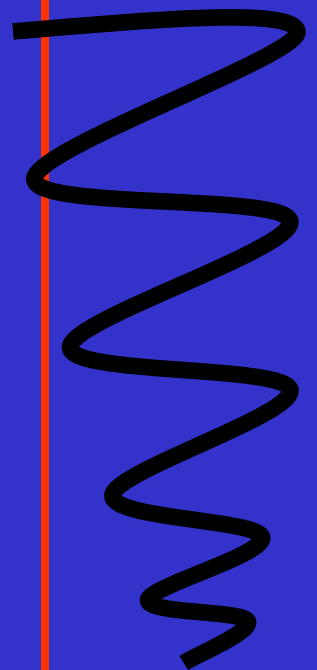


Top to Bottom Review

- Examine best practices of other jurisdictions
- Equipment demonstrations
- Industry representatives
- Formed a committee of refuse workers
- Explore other options – looking toward “Vision of Rockville Refuse System in 2020” not just a solution for 2008
- Worker morale
- Component by component review



Declining Service Quality Due to Downward Spiral of Current Program

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- Declining morale
 - High rate of worker injuries caused by manual backdoor collection
 - Workers compensation (City benefit + workers compensation > salary)
 - Workers on light duty, currently 6 (19%)
 - Temporary contract workers – no CDL, training, no commitment to Rockville Way, poor customer service
 - Pulling from seniority list hinders other City functions
 - Short-term disability, currently 1 (3%)
 - Difficulty recruiting and retaining workers – currently at 43% turnover rate



Refuse Charge by Component

	Estimated Amount of Budget	Percentage of Budget	Portion FY07 Monthly Charge
Oil, tires, batteries, hazardous waste	\$81,324	1.0%	\$0.31
Seasonal Leaf	\$549,782	10.4%	\$3.22
Yardwaste	\$336,495	6.4%	\$1.98
Refuse	\$3,282,760	62.6%	\$19.41
Bulk Collection	Included with Refuse	Included with Refuse	Included with Refuse
Metal/Whitegoods	\$132,368	2.5%	\$0.78
Recycling (multi-stream)	\$900,395	17.1%	\$5.30
Totals	\$5,283,124	100.0%	\$31.00



Component by Component Review

Oil, Tires, Batteries, Household Hazardous Waste

- Manual, household collection by appointment
- Tire collection, hauling, storing requires special MDE licenses
- Household hazardous waste requires special training/certification
- Used by only 2.8% of Rockville households over the last year; paid for by all in base rate (estimated \$0.31 of monthly charge)
- Recommend elimination of collection; drop off service available 7 days per week at the Montgomery County Transfer Station – free of charge to county residents



Component by Component Review

Seasonal Leaf Collection

- Two Fall and one Spring collections per area
- Three worker crew using City vacuum trucks
- Highly popular due to resident convenience; included in base (estimated \$3.22 of monthly charge)
- Recommend retaining service, but automating leaf vacuums and reducing crew



Component by Component Review

Yardwaste

- Weekly, manual household collection in biodegradable paper bags or 32-gal cans
- Widely used by residents; in base rate (estimated \$1.98 of monthly charge)
- Tipping fee increase from \$36/ton to \$40/ton in FY08 (11%)
- Recommend retaining service and exploring automation options



Component by Component Review

Refuse

- Manual, backdoor, twice-per-week collection
- Estimated \$19.41 of monthly charge (includes bulk collection)
- Tipping fee increase from \$52/ton to \$60/ton in FY08 (15%)



Component by Component Review

Refuse



Townhomes

- Some townhomes present difficulties with converting to a cart system
 - No alley/street access
 - No garage to store cart
 - No direct access from backyard to curb because not an end unit
 - No enclosed patio
 - Covenants or other restrictions
- Currently, many are storing refuse in backyards or basement and carrying it through the home to set out.
- Difficult to utilize carts
- Recommend working with each townhome community to find the best solutions for each. If necessary, exempt on a case by case basis and implement a manual bag system.



Component by Component Review

Refuse

Recommendation

- Curbside/alley, once-per-week
- Semi-automated, fully-automated in alleys
- Possibly expanding to fully-automated beginning in FY11 with full implementation in FY13
- Expansion based upon experiences and testing in neighborhoods
- Variable-based-pricing based on size of cart selected by resident (four cart sizes offered)
- Provide exemptions as necessary for townhomes where cart system collection will not work
- Non-collection holidays will be rescheduled to Wednesdays
- Back/side door collection for disabled and those unable to get carts to the curb



Component by Component Review

Variable-based-pricing

- 58% of pilot residents responding to the survey said that they strongly support or support variable-based-pricing 31% opposed)
- An incentive for recycling
- Promotes fairness and equity
- Introduces revenue uncertainty as the actual allocation of cart sizes is unknown at this time
- Residents will choose their preferred cart sizes in advance
- One free cart change per year; modest charge for each additional change

Cart Size	FY08 Estimated Monthly Refuse Charge
96-gallon	\$38.13
64-gallon	\$32.13
48-gallon	\$29.13
32-gallon	\$26.13



Component by Component Review

Variable-based-pricing

Cart Size	FY08 Projected Quarterly Bill (Current System)	FY08 Estimated Quarterly Bill (Semi-Automated)	Dollar Change	Percent Change
96-gallon	\$98.10	\$114.39	+ \$16.29	+ 16.6%
64-gallon	\$98.10	\$96.39	- \$1.71	- 1.7%
48-gallon	\$98.10	\$87.39	- \$10.71	- 10.9%
32-gallon	\$98.10	\$78.39	- \$19.71	- 20.1%



Component by Component Review

Overflow

- Manual, unlimited curbside collection, twice-per-week in the current system
- Options for overflow – buy bags/tags or purchase additional carts
- Bags/tags for occasional overflow
 - Require manual collection and do not promote fully-automated collection
 - Do not promote cleaner neighborhoods
 - Provide more resident flexibility
 - Price needs to be set to encourage right-sizing cart instead of continued bag/tag usage



Component by Component Review

Overflow

- **Recommendation - Offer additional carts and bags/tags**
 - 8% of pilot residents responding to survey said they would choose an additional cart as an optional service
 - No initial one-time charge to residents for additional carts (price of cart built into monthly charge)
 - Recommend establishing a subscription schedule, based on size of cart selected
 - Additional bags/tags \$4.00 each

Cart Size Selected	Additional Monthly Charge Per Cart
96-gallon	\$18.00
64-gallon	\$12.00
48-gallon	\$9.00
32-gallon	\$6.00



Component by Component Review

Overflow

- Unlimited overflow collection during three designated weeks to accommodate expected additional refuse during peak holidays
 - Week of Thanksgiving, Christmas, and New Years
 - Free to residents
 - Do not need to utilize pre-paid bags/tags
 - Cart does not need to be sized based for these very peak times



Component by Component Review

Frequency of Collection

- 93% of pilot residents very satisfied or satisfied the pilot program
- 82% of pilot residents strongly support or support citywide implementation
- 55% of respondents in pre-pilot 2004 citywide survey supported once-per-week collection with carts
- Recommend once-per-week collection



Component by Component Review

Bulk Collection

- Manual, curbside collection, twice-per-week; included in current program
- 60% of pilot residents responding to the survey use bulk collection quarterly or less
- Recommend retaining bulk collection, changing to quarterly scheduled pickup, and combining with metal/whitegoods collection using automated knuckleboom trucks



Component by Component Review

Metal/Whitegoods

- Manual, household collection by appointment
- Separation from other bulk is confusing to residents
- Used by only 19% of households last year; in base rate (estimated \$0.78 of monthly charge)
- Recommend retaining metal/whitegoods collection, combining with bulk collection, and using automated knuckleboom trucks



Component by Component Review

Commingle/Mixed Paper Recycling

- Manual, curbside, once-per-week collection
- Recommend semi-automated (fully-automated in alleys), curbside, once-per-week collection; same day as refuse collection
- Offer four – no charge for different size carts, cart costs are included in the base refuse charge
- Single stream recycling
- New term “Recyclables”



Current Set Out



Single Stream Set Out



Recommendations

Implement a modernized, financially and environmentally sustainable refuse and recycling program citywide in FY08 that provides:

- Semi-automated, once-per-week, curbside only refuse and recycling collection with limited fully-automated routes (alleys)
- Variable-based-pricing based on four refuse cart sizes with an extra charge for additional carts and bags/tags
- Single stream recycling
- Utilization of the Montgomery County Transfer Station for residents to take oil, tires, batteries, and hazardous waste
- Quarterly scheduled bulk collection (including metal/whitegoods) with automated knuckleboom trucks for efficiency
- Enhance leaf pick-up service with automated leaf vacuums.
- A transition to fully-automated collection where possible by FY12



Implementation Costs

Expenditure	FY07 Costs for Implementation	FY07 Current Budget	Additional Amount Required
Carts	\$1,137,904	n/a	\$1,137,904
Equipment: mini-max (3) knuckleboom (1) trailer (1) lifters (4 sets)	\$588,000	\$448,631	\$139,369
Truck rental: (cart delivery)	\$10,000	n/a	\$10,000
Off-load facility (est.)	\$240,000	n/a	\$240,000
Other start-up costs	\$49,700	\$14,000	\$35,700
Totals	\$1,785,604	\$462,631	\$1,322,973



Estimated Annualized Cost Savings for Semi-Automated Collection

Unit	Description	Estimated Total Annual Costs/(Savings)
Personnel & contract labor	Salary, benefits, other	(\$780,157)
Refuse packers	Capital, O&M	(\$202,457)
Recyclers	Capital, O&M	(\$123,350)
Lifters	Capital, O&M	\$15,840
Automated mini-max (3)	Capital, O&M	\$97,387
Knuckleboom truck (3)	Capital, O&M	\$92,400
Trailer – cart delivery	Capital, O&M	\$1,000
Off-load facility	Capital	\$12,000
Hauling	Operations	\$50,000
Carts	1 refuse, 1 recycling, repair/replacement	\$133,860
Total		(\$703,477)



Estimated Annualized Cost Savings for Fully-Automated Collection

Unit	Description	Estimated Total Annual Costs/(Savings)
Personnel & contract labor	Salary, benefits, other	(\$1,058,773)
Refuse packers	Capital, O&M	(\$301,861)
Recyclers	Capital, O&M	(\$123,350)
Lifters	Capital, O&M	\$8,800
Automated mini-max (3)	Capital, O&M	\$97,387
Fully-automated truck (3)	Capital, O&M	\$255,550
Knuckleboom truck (3)	Capital, O&M	\$92,400
Trailer – cart delivery	Capital, O&M	\$1,000
Off-load facility	Capital	\$12,000
Hauling	Operations	\$50,000
Carts	1 refuse, 1 recycling, Repair/replacement	\$133,860
Total		(\$853,047)

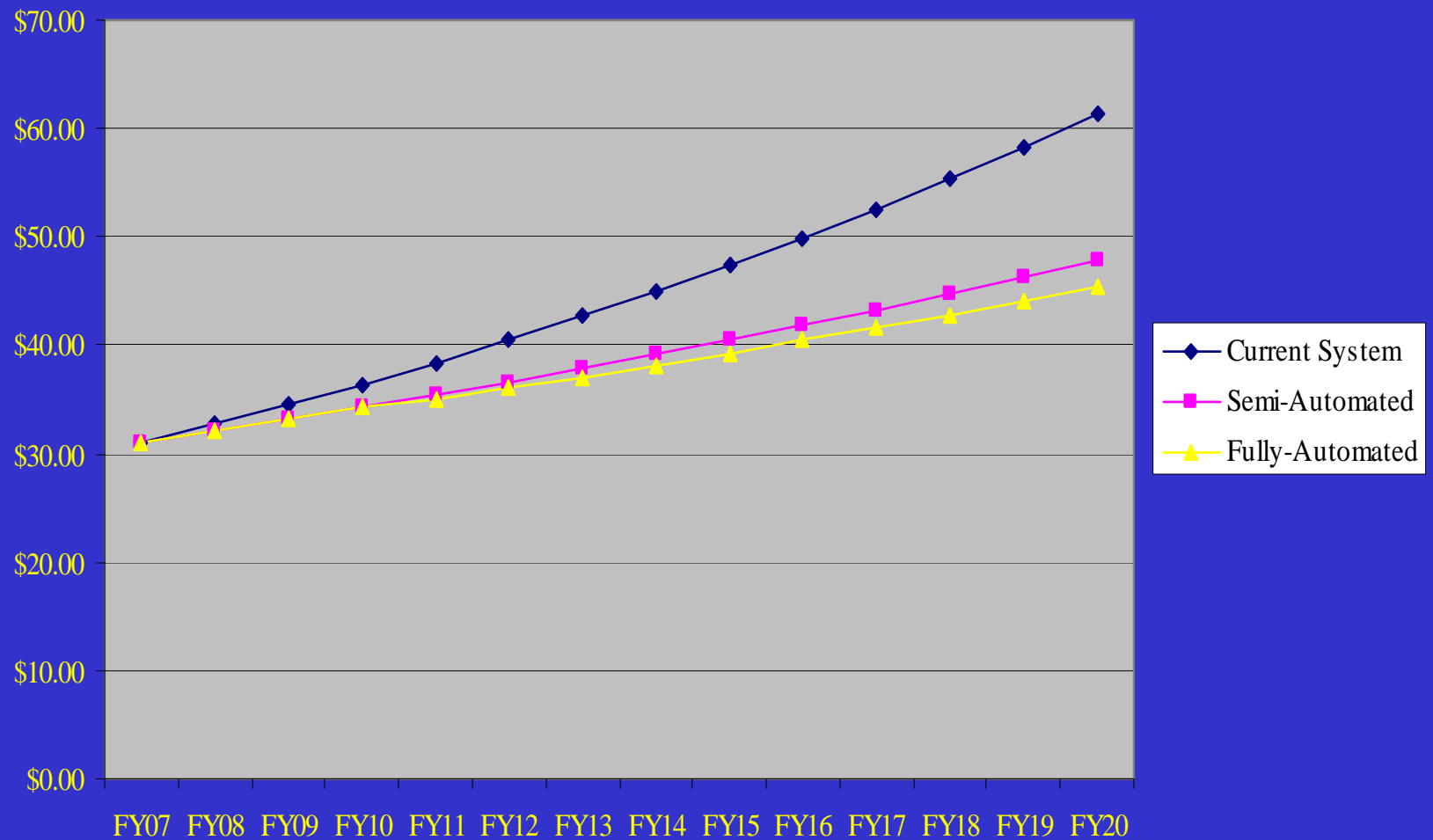


Refuse Charge Comparison

FY 2007 Base	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Rate/month	\$31.00	\$32.70	\$34.50	\$36.40	\$38.40	\$40.50	\$42.70	\$45.00	\$47.40	\$49.95	\$52.60	\$55.40	\$58.35	\$61.45
\$ Increase	\$1.50	\$1.70	\$1.80	\$1.90	\$2.00	\$2.10	\$2.20	\$2.30	\$2.40	\$2.55	\$2.65	\$2.80	\$2.95	\$3.10
% Increase	5.08%	5.48%	5.50%	5.51%	5.49%	5.47%	5.43%	5.39%	5.33%	5.38%	5.31%	5.32%	5.32%	5.31%
FY 2007 Semi	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Rate/month	\$31.00	\$32.05	\$33.15	\$34.30	\$35.45	\$36.65	\$37.90	\$39.20	\$40.50	\$41.85	\$43.25	\$44.75	\$46.30	\$47.90
\$ Increase	\$1.50	\$1.05	\$1.10	\$1.15	\$1.15	\$1.20	\$1.25	\$1.30	\$1.30	\$1.35	\$1.40	\$1.50	\$1.55	\$1.60
% Increase	5.08%	3.39%	3.43%	3.47%	3.35%	3.39%	3.41%	3.43%	3.32%	3.33%	3.35%	3.47%	3.46%	3.46%
FY 2007 Fully	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Rate/month	\$31.00	\$32.05	\$33.15	\$34.30	\$35.00	\$36.05	\$37.10	\$38.20	\$39.30	\$40.45	\$41.65	\$42.85	\$44.10	\$45.40
\$ Increase	\$1.50	\$1.05	\$1.10	\$1.15	\$0.70	\$1.05	\$1.05	\$1.10	\$1.10	\$1.15	\$1.20	\$1.20	\$1.25	\$1.30
% Increase	5.08%	3.39%	3.43%	3.47%	2.04%	3.00%	2.91%	2.96%	2.88%	2.93%	2.97%	2.88%	2.92%	2.95%



Refuse Charge Comparison



Advantages of Proposed System

- **More cost-effective and sustainable**
 - Lower costs for fuel, personnel, operating, tipping fees, etc.
- **Better for the environment**
 - Cleaner neighborhoods
 - Makes recycling easier; increasing recycling rate
 - Less pollution from vehicles
- **Reduced worker injuries**
- **Permits variable-based-pricing to encourage recycling and charges fees based upon use**
- **More equitable**
- **Less resident prep time on set-out days**
- **Multiple cart sizes to address storage and difficult set-outs**
- **Single stream recycling**
- **Establishes Rockville as an environmental leader in the area**
- **Pilot determined increased resident satisfaction with once-per-week, semi-automated collection over the current system**



Option Comparison

	Current System	Semi-Automated
Cost Effectiveness:		
• FY20 rate	— (\$61.45)	+ (\$47.90)
• Year out of debt	— (FY15)	+ (FY10)
• Annualized cost	—	+
Environment:		
• Cleaner neighborhoods	—	+
• Less pollution	—	+
Worker injuries	—	+
Recycling	—	+
Equity	—	+
Prep time on set-out days	—	+
Single stream recycling	—	+



Next Steps

- Outreach
 - Notify pilot residents of results and transition plan
 - Public meetings, letter to residents of changes, post card for cart size selection
- Negotiate contracts for a single stream Material Recovery Facility, hauling, off-load facility, vehicles, carts, lifters, bags/tags
- Union coordination – throughout
- Refuse charge resolution
- City Code changes
- Refuse and Recycling Regulations
- Transition plan – implementation expected throughout FY08
 - Routes
 - Training on new equipment
 - Cart assembly and distribution
 - Billing
 - Work with neighborhoods



Twice-Per-Week Collection

- Annualized cost of twice-per-week, semi-automated collection is an estimated \$130,766 over current system
- The refuse charge in FY20 is estimated at \$65.90
- Pilot residents are extremely satisfied with once-per-week collection
- Resident's who don't need or want twice-per-week will be subsidizing those who do
- Retaining twice-per-week is too costly and unnecessary with proposed system



Est. Annualized Costs for Semi-Automated Twice-Per-Week Collection

Unit	Description	Estimated Total Annual Costs/(Savings)
Personnel & contract labor	Salary, benefits, other	(\$235,744)
Refuse packers	Capital, O&M	\$80,553
Recyclers	Capital, O&M	(\$123,350)
Lifters	Capital, O&M	\$28,160
Automated mini-max (3)	Capital, O&M	\$97,387
Knuckleboom truck (3)	Capital, O&M	\$92,400
Trailer – cart delivery	Capital, O&M	\$1,000
Off-load facility	Capital	\$12,000
Hauling	Operations	\$50,000
Carts	1 refuse, 1 recycling, repair/replacement	\$128,360
Total		\$130,766

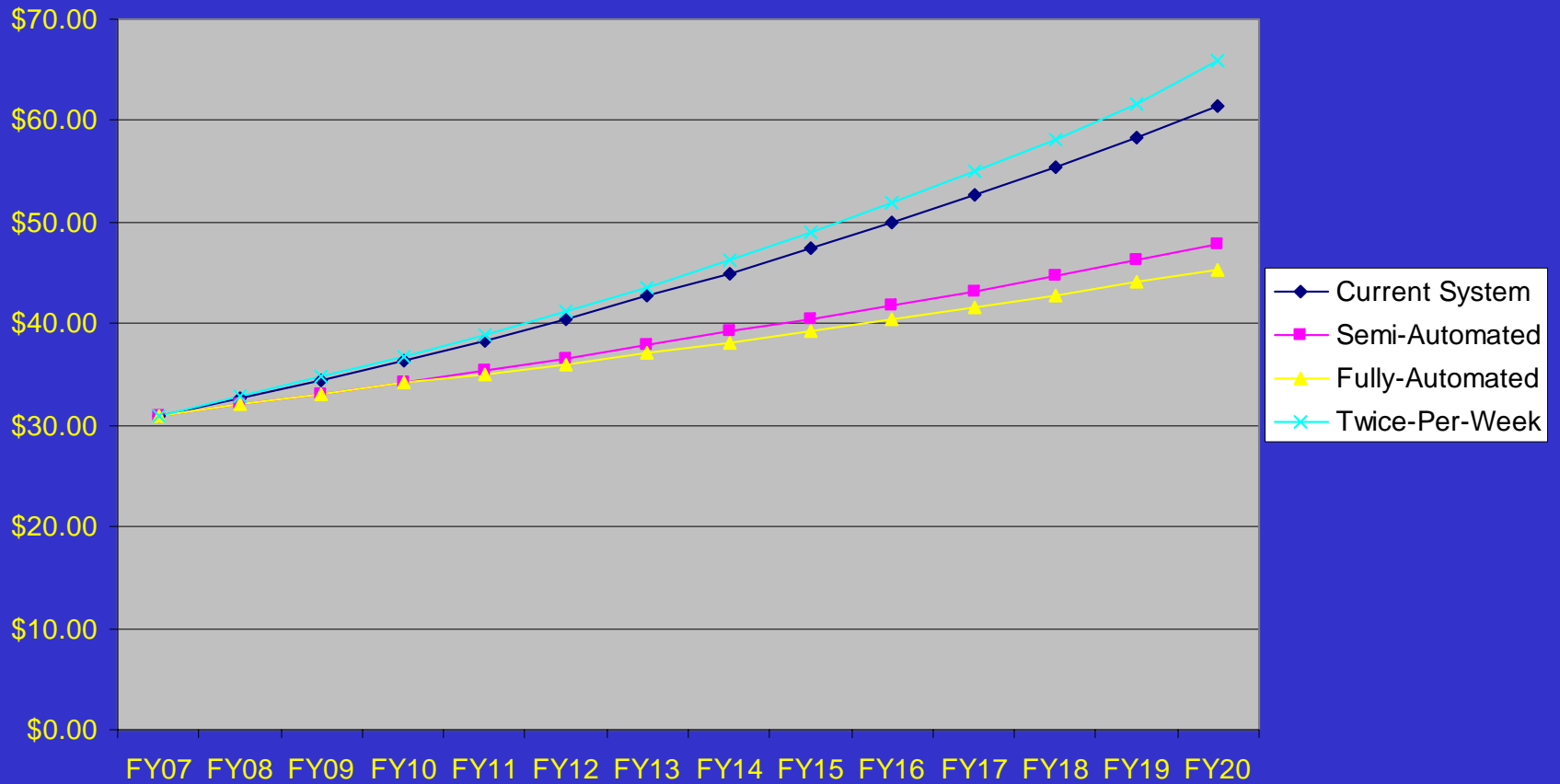


Twice-Per-Week Collection

Current System	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
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% Increase	5.08%	5.48%	5.50%	5.51%	5.49%	5.47%	5.43%	5.39%	5.33%	5.38%	5.31%	5.32%	5.32%	5.31%
Semi-Automated	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Rate/month	\$31.00	\$32.05	\$33.15	\$34.30	\$35.45	\$36.65	\$37.90	\$39.20	\$40.50	\$41.85	\$43.25	\$44.75	\$46.30	\$47.90
\$ Increase	\$1.50	\$1.05	\$1.10	\$1.15	\$1.15	\$1.20	\$1.25	\$1.30	\$1.30	\$1.35	\$1.40	\$1.50	\$1.55	\$1.60
% Increase	5.08%	3.39%	3.43%	3.47%	3.35%	3.39%	3.41%	3.43%	3.32%	3.33%	3.35%	3.47%	3.46%	3.46%
Fully-Automated	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Rate/month	\$31.00	\$32.05	\$33.15	\$34.30	\$35.00	\$36.05	\$37.10	\$38.20	\$39.30	\$40.45	\$41.65	\$42.85	\$44.10	\$45.40
\$ Increase	\$1.50	\$1.05	\$1.10	\$1.15	\$0.70	\$1.05	\$1.05	\$1.10	\$1.10	\$1.15	\$1.20	\$1.20	\$1.25	\$1.30
% Increase	5.08%	3.39%	3.43%	3.47%	2.04%	3.00%	2.91%	2.96%	2.88%	2.93%	2.97%	2.88%	2.92%	2.95%
Twice-Per-Week	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Rate/month	\$31.00	\$32.85	\$34.75	\$36.75	\$38.90	\$41.15	\$43.60	\$46.20	\$48.95	\$51.85	\$54.95	\$58.20	\$61.65	\$65.90
\$ Increase	\$1.50	\$1.85	\$1.90	\$2.00	\$2.15	\$2.25	\$2.45	\$2.60	\$2.75	\$2.90	\$3.10	\$3.25	\$3.45	\$4.25
% Increase	5.08%	5.97%	5.78%	5.76%	5.85%	5.78%	5.95%	5.96%	5.95%	5.92%	5.98%	5.91%	5.93%	6.89%



Twice-Per-Week Collection



Once-Per-Week with Twice-Per-Week Option

Frequency of Collection

- Creates high revenue and operational uncertainties
- Not as environmentally friendly – trucks run almost twice as much to collect same volume as once-per-week
- Extra cost to resident as optional service is high
- Extra controls needed to ensure resident is paying when setting out on second day
- Stickers would be utilized on carts indicating twice-per-week subscription; prices of the stickers based on cart size selection
- Route scheduling difficult and constantly changing to mixed collection methods (fully and semi automated) and customer changes
- Inefficient as workers have to constantly verify subscription list to determine stops



Once-Per-Week with Twice-Per-Week Option

Frequency of Collection

- Certain to result in more missed collections and reduced customer satisfaction
- Subscription rate below a certain threshold, optional service discontinued

Cart Size Selected	Base Monthly Charge	Twice-Per-Week Subscription Additional Charge	Total Charge
96-gallon	\$38.13	\$28.27	\$66.40
64-gallon	\$32.13	\$22.27	\$54.40
48-gallon	\$29.13	\$19.27	\$48.40
32-gallon	\$26.13	\$16.27	\$42.40

